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Latin American Nineteenth Century Public Debt: Theory and Practice

1. Introduction

On the eve of the First World War Latin American countries had accumulated public foreign debts aggregating to more than two billion dollars. This was not the whole of foreign investment, by any means. Total external capital was probably more than four times as large, and private applications much more rapidly growing from the last quarter of the nineteenth century forward. Where governments had stood as virtually the only borrowers at mid-century, in their place by 1913 stood private railways, public utilities and other enterprises reflecting both direct as well as portfolio investment.[1]

The principal creditor, on both private and public account, was Great Britain. London was the financial center to which Latin, Americans primarily turned. Paris, as well as Berlin, was much more directed to European and colonial lending and the pursuit of political influence. New York was to make its large scale debut only in the 1920s. This reliance upon Britain was especially notable for government securities. While less than half of total investment, the British share in governmental debt in Latin America probably exceeded 80 percent.

Public borrowing in Latin America during the nineteenth century was not a tranquil and continuous process. It was char-

1 For our purposes, these orders of magnitude will do. They come from secondary estimates that are flawed in known ways as estimates of investment; but as estimates of debt, the nominal sums are obviously closer to the mark. See Table 1.

acterized by discontinuity, default and differentiation. Governmental debt, like private applications, shared in the long swing movements of the British economy and capital market; it could hardly be otherwise: after the mid-century public proceeds progressively were applied to investment in infra-structure, exactly like direct private investment in such facilities.

That variability is part of the story of the failure of most Latin American sovereign borrowers to service their obligations continuously. After an early and nearly universal experience of default in the 1820s – Brazil was an exception – virtually all Latin American countries returned to the better graces of creditors in the 1850s. Yet, by 1913 Peru had been forced to settle its debt by delivering assets to a private corporation; Mexico, racked again by internal political turmoil, was on the verge of default once more; Brazil was to require another funding loan to avoid the same fate; and Argentina had emerged only in the late 1890s from a painful restructuring of its debt.

In this paper, I hope to provide a theoretical basis for a better understanding of the fragility of Latin American borrowing and the frequency of default during the nineteenth century. Section 2 focuses on that theory while Section 3 introduces three episodes of nineteenth century practice. Section 4 provides a brief conclusion.

2. Theoretical Considerations

It is useful to differentiate two distinct motivations for public borrowing. One, short-term in character, is deficit smoothing. Faced with a temporary shortfall in revenues or a temporary increase in expenditures, a strategy of financing the deficit may dominate an immediate adjustment. The critical determinants in the choice are the rates of time preference and of interest. So long as the former exceeds the latter, it pays to borrow. The reason is that a more even pattern of consumption dominates an irregular one.

The second reason for public borrowing is longer term in character. It is to use public credit, or guarantee, in order to achieve lower cost resources for investment purposes. In this instance, the public sector intervention contributes to more efficient financial intermediation and greater investment. The greater the absence of financial markets, and the larger the role of the state in direct infrastructure investment, the more extensive the need for public borrowing. Again interest rates matter, but this time they are to be evaluated against the return from the productive application of the resources.

Figure 1: Revenue and Developmental Borrowing

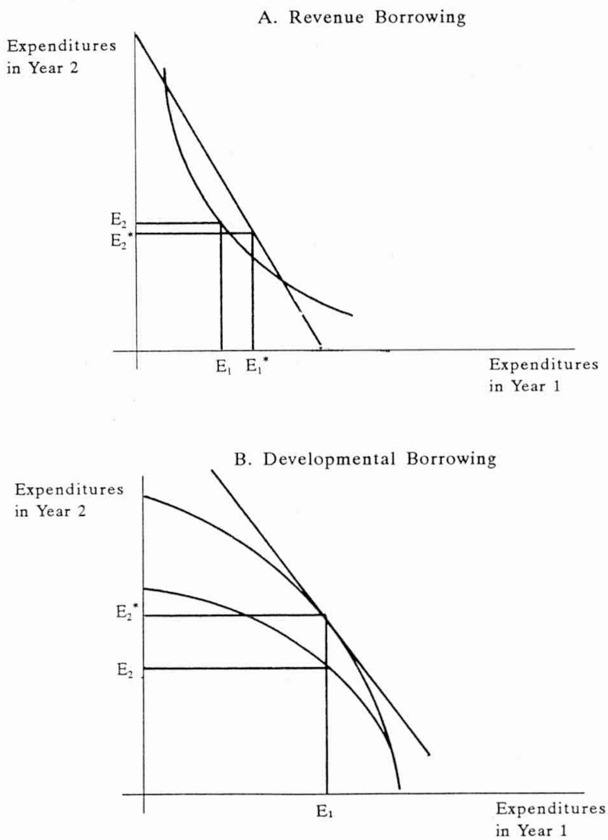

Figure 1 helps to distinguish between these cases. Panel A shows revenue borrowing to smooth public expenditure between two periods. For exogenous reasons related to some external shock, expenditure capability next period will be greater than now, defining the initial pair, E_1, E_2. Given that there is diminishing substitution between these expenditures and that the interest rate, measured by the angle emanating from the initial equilibrium, does not exceed the marginal rate of substitution, there is a superior couplet, E_1^*, E_2^* that can be attained. It pays to borrow the difference between E_1^* and E_1 and repay it with interest in the next period. But there is no permanent gain in production.

In Panel B we consider development borrowing. Now there is a transformation curve relating expenditure capability in the two periods. If there is investment, measured as the difference between actual and potential expenditures in the first period, it yields a positive return in the second. So long as the return exceeds the interest rate at which one can borrow, it pays to increase investment in the first period. That surplus is shown in the figure as E_2^* - E_2. The yield on public investment will liquidate the debt while leaving a dividend for expenditure in the second.

Thus far the emphasis has simply been on borrowing regardless of source. The need for external rather than internal borrowing originates in two circumstances. One is a lack of sufficient internal resources, which may be expected to reflect itself in higher domestic rates of interest. The other is a need for foreign exchange to balance the foreign accounts. Ex post, foreign lending will create its own demand for imports; that is one of the motivations for creditors to extend such credits. But ex ante, governments undertaking large investment projects also understood the importance of having foreign exchange available to pay for the rails, locomotives, engineering services, etc. that were part of the cost of railway construction, for example. Even if surplus savings were available domestically, they could not be applied productively in the absence of import capacity.

Foreign rather than internal borrowing sets up a dual transfer problem. First, governments must secure the required debt service in domestic currency. Then public authorities must convert these primary surpluses available for debt service into foreign exchange to meet their external obligations. Thus they must be able both to tax adequately to generate the fiscal surplus as well as to have the capacity to transfer it abroad. An internal debt is conceptually differentiated only by its service in domestic currency; when it was denominated at issue, as governments sometimes did, in gold, it is not different from a debt contracted in London. All the rest is a false accounting distinction, which has no additional juridical merit; foreign purchasers of such obligations have the same recourse to international law and political pressure, as was exemplified in Latin America several times in the nineteenth century.[2]

Where internal debt potentially can be substituted by domestic currency issue, foreign debt cannot, if foreign exchange is the key necessity. Governments choose internal debt rather than monetary expansion in order to elicit voluntary savings in preference to an inflation tax and forced savings. In the end, the inflation tax can be evaded and its collection limited by public unwillingness to accept currency. However, it is important to note that Latin American governments frequently had resort to increases in monetary issue when faced with deficits. No Latin American country managed a permanent conversion to the gold standard that would have imposed much greater internal discipline and lesser domestic inflation. Even with the silver standard there was a continuing depreciation vis-a-vis gold at the end of the century.

External debt brought with it new responsibilities to earn foreign exchange through expanded trade. It also meant susceptibility to external creditor pressures as well as exposure to varying conditions in international capital markets. But these liabilities were offset by a determining reality. Interest rates

2 This is another pitfall in the estimates of foreign public debt that most estimates do not consider.

for foreign borrowing, high as they might be, were much lower than those available locally. Latin American countries were capital poor, if resource rich. The public sector needed funds if it were to fulfill its role in encouraging investment. There was a further effect of public creditworthiness in attracting additional foreign investment in private activities.

Borrowing did not, and need not, always yield a happy result. Mistakes of over-borrowing, and over-lending, are easily made when an uncertain future is at stake. In fact, these were compounded by explicit fraud perpetrated by dishonest officials and bankers at the height of market enthusiasm. Neglecting those aberrations, we can consider the critical factors which in theory determine whether resort to external public borrowing is likely to yield success or not.

We can formalize some of these viability conditions in more detail. For revenue borrowing, the critical necessity is the domestic capacity to generate future revenue surpluses independently of the contribution of the borrowed funds. By presumption, the latter are primarily directed to consumption needs. Underlying such capacity must therefore be a cyclical reversal in either revenues or outlays. In the former case, it may be recovery in trade or, more generally, economic activity from a temporary adverse shock; in the latter, reduction of extraordinary outlays on war can provide the necessary surplus.

Only exceptionally would a ratio of debt to revenues in excess of unity be prudent for revenue borrowing. Firstly, optimal debt itself would be less than the short-fall in revenue (or increase in expenditure) since in future periods there would have to be a corresponding adjustment the other way. To sustain an even consumption path one cannot fully compensate for the adverse shock. Secondly, such a rule allows for compensation for several years of below average performance, say four years of more than 25 percent in each year. Thirdly, subsequent service of the debt, at the expense of other expenditures would rarely be feasible at higher ratios. Debt service easily could reach ten percent of actual proceeds, given the discounts at which securities sold, and reallocation of ten percent of later average outlays is a considerable task for most governments.

For developmental borrowing, one must take into account the returns achieved from public expenditure. The setting is thus dynamic rather than static. One solvency rule is that the rate of growth of public revenues exceed the interest rate. In these circumstances it is even possible to achieve a stable, maximum debt-revenue ratio under conditions of continuous public primary deficits. That limiting ratio would be given by $d/(r_g - i)$, where d is the deficit as a ratio of revenues; r_g is the rate of growth of revenues; and i is the rate of interest. A continuous 5 percent deficit, with revenues growing at 6 percent annually and interest rates at 4 percent, would thus translate into a limiting debt-revenue ratio of 2.5. The 6 percent annual increase in debt – 4 percent from interest and a 2 percent primary deficit (5 percent of revenues divided by 2.5) – is exactly offset by the growth in revenues.

But as interest rates rise relative to revenue growth, the limiting ratio becomes very much larger and creditors lose confidence in the ability to cover progressively higher debt service charges that, in turn, are entirely financed by new debt. Here it becomes clear how variation in supply affects the outcome. An inability to continue to borrow exposes the debtor to finding resources oneself, and the former primary deficit must become a surplus. If the debtor cannot achieve such a surplus, then debt cannot be serviced even if the long-term position is stable.

If interest rates exceed revenue growth, as for much of Latin American nineteenth century borrowing they did, a less demanding rule for stability is possible. If primary surpluses are earned to pay some fraction of debt service without resort to borrowing to cover them, it is possible to attain a stable debt-revenue position. We can write the change in the debt-revenue ratio as follows: $\Delta D/R = (i - r_g)\, D/R - s$, where s is now the primary surplus as a ratio of revenues. A regular surplus of 5 percent now combines with an interest rate of 6 percent and revenue growth of 4 percent to yield a stable debt-revenue ratio of

2.5. However, note again that the earlier emphasis upon regularity of lending is now joined to continuity of surplus generation.

These calculations speak to the internal transfer problem independently of the external. Governments, coping with foreign creditors, enjoyed no such luxury. They had to effect payment in foreign exchange. Because of non-adherence to the gold standard and hence an inconvertible currency system, the rate of exchange became a central determinant of debt service capacity. When real exchange became dear, as it did when the balance of payments deteriorated, the costs of servicing the debt also rose and put additional strain upon the public sector. The same would not be the case when exchange rates deteriorated as a result of domestic monetary issue; for then, if governmental revenues increased proportionately, there would be the means to effect the foreign transfer. This distinction is frequently ignored in some narrative accounts that focus on the nominal rate.

As private foreign investment increased in importance in the latter part of the nineteenth century, its contribution to the balance of payments through capital inflows actually exceeded public sector influence. There was in addition the evolution of export earnings and the terms of trade that also played a role in determining the exchange rate. Thus the whole constellation of economic forces, and not only the evolution of the public sector, played a significant role in the ability to service foreign public debt once the external transfer problem is taken into account.

One can capture an important component of these forces, the balance of trade, by extending the earlier discussion to utilize the overall foreign capital-export ratio as a measure of country creditworthiness. Then, instead of limiting attention to revenues, we can now write for the change in the foreign capital-export ratio, $\Delta K_f/X = (i - r_x)\, K_f/X - t$, where r_x is the rate of growth of export earnings and t is the trade and non-factor service surplus. The evolution of the foreign capital-export ratio thus critically depends on the relationship between interest rates and the rate of growth of exports. If interest rates are less than export growth, it is possible to finance a continuing transfer of resources consistent with a limiting ratio of capital to exports; if the reverse holds, then export surpluses must be generated to provide a means for servicing at least some fraction of external obligations. The reason why so many countries in Latin America in the nineteenth century had to sustain a surplus of exports over imports now becomes clearer. It is a mistake, however, to call this surplus an export of capital; capital export is measured by a surplus on the current account as a whole, including interest payments, and not on the trade account alone.

These theoretical principles can be utilized to examine in closer detail several features of the nineteenth century Latin American experience. Before doing so, I wish to extend the distinction between revenue and developmental borrowing to serve as a more focused basis for interpreting that history. I want to suggest that default for public revenue borrowers was more probable because of more easily violated lower limits of debt-service capacity in the absence of an increasing revenue base. Such default would be treated more politically in its attempted resolution, moreover, because there was a presumption of internal fiscal inadequacy as its cause. Debt relief would be expected because it was the best one could do, but it would bring with it a higher degree of supervision and control. Capital markets could be expected to take a dim view of new lending prospects for some time.

By contrast, development borrowing would be more successful in permitting the construction of an infrastructure and the integration of countries into an expanding world economy. Default, when it occurred, would be more related to an external transfer problem than an internal one. Its resolution would be associated with debt consolidation and extension of new credits. Par excellence, it was a matter of temporary liquidity rather than permanent insolvency. Economic growth could be counted upon to reinforce creditworthiness and capital markets would be more willing to extend new credits.

Figure 2: Characteristics of Borrowing

	Revenue Borrowing	Developmental Borrowing
Purpose	Consumption	Investment
Source of Repayment	Reduced Future Expenditure	Revenue Growth
Probability of Default	High	Low
Renegotiation Outcomes	Reduction in Permanent Debt Service	Temporary Assistance; Increased Lending
Probability of Intervention	High	Low
Future Access to Capital Markets	Impaired	Unimpaired

Figure 2 sets out this differentiation in tabular form. It applies, as does this discussion as a whole, to the larger global process of capital flow in the nineteenth century and not to Latin America alone.[3] But it is now necessary to square these principles and hypotheses with the Latin American nineteenth century historical experience.

3. Practice

Three phases of nineteenth century Latin American public borrowing will be considered: the initial debt contracted in the 1820s, the crisis of the 1870s, and the Argentine and Brazilian defaults of the 1890s.

3 For a more general discussion of capital flows, see Fishlow (1985a).

a. The 1820s

Table 1 refers to the first of these historical episodes. It presents the face value of the bonds initially sold in London, the resources actually received, the effective rate of interest and amortization, and the debt-revenue ratio. The implicit debt service cost as a fraction of public revenues is the product of the last two.

Table 1: External Public Debt in the mid-1820s
(in Millions of Pound Sterling)

Country	Nominal Debt	Realized Value to State[a]	Annual Interest Service[b] on Realized Value	Nominal Debt/Public Revenue
Argentina	1.0	0.6	8.6 %	1.9[c]
Brazil	5.1	3.0[d]	8.4 %	4.6[e]
Chile	1.0	0.6	8.6 %	3.2[e]
Mexico	5.3	2.5	8.0 %	2.2[e]
Peru	1.8	1.4	7.2 %	1.8
Gran Colombia	6.8	5.9[f]	6.9 %	> 10

a After deduction of initial interest and amortization obligations.
b Interest service calculated on realized value *inclusive* of initial interest and amortization obligations.
c 1824.
d Excludes the £ 1.5 million Portuguese loan of 1823 which Brazil accepted as a condition for independence. This is included in the nominal debt and in annual debt service.
e Average 1824-25.
f Excludes any adjustment for deduction of initial interest and amortization.

Sources: Argentina: Peters (1934: 13) and Burgin (1946: 49); Brazil: *Estatísticas Históricas, Brasil* (1987, III: 522, 540, 570); Chile: Molina (1898: 90, 107-108, 205); Mexico: Wynne (1951, II: 5-7) and McGregor (1847: 1167); Peru: Wynne (1951, II: 109), Marichal (1989: 28), and Bethell (1987: 243); Gran Colombia: Marichal (1989: 28, 30-33) and McGregor (1847: 1243, 1329).

What is clear from Table 1 is the high effective interest rate all Latin American governments paid for the privilege of borrowing in the London market. The worst in this respect was Mexico, whose initial bonds, sold in 1824, fetched only fifty percent of par despite firm pledges of customs duties. As a result of a much better price on a second issue, which also retired a fraction of the first at a favorable price, its average cost is slightly less than Chile's. Yet, even the best borrower, Brazil, was handicapped by being forced to accept £ 1.5 million in Portuguese obligations as a condition of independence; were that to be ignored, its terms promised a premium of just about double the going rate on Consols of a little more than 3 percent. No government could confidently expect to service resources borrowed on such terms, especially when their primary use was to enhance inadequate revenues whose future path was far from positive.

But the interest rate charged was still clearly much lower than the costs of resources obtained locally. Rates of 2 percent a month for commercial discounts were reported in Buenos Aires, and internal debt, despite depreciation, had to be forced on unwilling takers. Foreign funds permitted consolidation of internal accounts and an improved fiscal position. It is not accidental that local creditors were eager to see placement of these securities to enhance likelihood of internal debt service, and in some cases, took a lead role.

Despite the precariousness of these loans, prices of Latin American securities nonetheless actually improved through the beginning of 1825. One reason was the general euphoria characteristic of financial market peaks, in which there seems to be no limit to gain. But an important factor was the assured service of the bonds as a result of setting aside initial interest and sinking fund charges for as much as two years. This is what reduced realized values to the state, as shown in Table 1, so substantially. The promised premium on these investments was thus realized initially. The test of debt service from domestic revenues was only to come later.

All governments except Brazil failed it. One of the important reasons is found in the foreign debt-revenue ratios. These very much exceed the level of unity that could be deemed already to stretch credulity. Put another way, external debt service could absorb as much as a third of total receipts for these countries.

Already in difficult financial straits and laboring under internal debts as well, there was limited ability to restrain other applications in favor of foreign creditors. Indeed, several countries continued to run deficits, but now necessarily financed internally, and at exorbitant cost. Argentina, not for the last time, increased its inconvertible monetary issue.

The key aspect of failure was thus lack of fiscal responsibility rather than unreliable access to foreign exchange. Contemporaries understood. When Mexico sought access to another foreign loan in 1827, "Alexander Baring of Baring Brothers advised that Mexico first alter its fiscal system substantively before it promised to honor commitments previously broken" (Tenenbaum 1986b: 29). Although imports fell, sometimes dramatically, with the lack of further finance, and the additional curtailment of short-term trade credits to importers, Latin American exports experienced no equivalent contraction. Indeed, the import contraction, although prejudicing revenues by the reduction of import duties, would have facilitated access to foreign exchange for debt service, had the domestic resources been at hand.[4]

But they were not. The decision to default did not come easily. There was a commitment to continued integration in the international economy. Colombia actually borrowed from Mexico to meet its April 1826 payment after Peru had been forced to miss its scheduled payment. But the Peruvian Ambassador's decision to reject a short-term loan from the Paris Rothschilds "on the grounds that it would prolong the agony but not solve the penury of his government" looks wise in hindsight (Marichal 1989: 55). No salvation was at hand in the form of additional credit; domestic austerity would have been necessary. Other countries were soon to follow, with the sole exception of Brazil.

That deviation is partially to be explained by reference to the growth in revenue that Brazil experienced. Although initial

4 The Argentine case, where exchange rates rapidly deteriorated after 1826, is no exception. There was a nominal devaluation associated with resort to domestic monetary issue rather than an external crisis.

debt service absorbed some 30 percent of proceeds, by 1828, the ratio had declined to a lower level. Brazil's lower cost of borrowing made feasible its relatively high debt-revenue ratio. It was that high, one should add, because Brazil absorbed a £ 1.5 million 1823 loan to Portugal as part of the peace settlement.

When it appeared that Brazilian service might be interrupted, it was possible to schedule a further loan in 1829 to relieve the pressure. Brazil was thus able to benefit from greater internal tranquillity emanating from its very different path to independence. For other countries, by contrast, the end of the 1820s ushered in internal political and military conflict which debilitated economic development. Mexico's lower debt-revenue ratio could not forestall default. Its expenditures did not allow for compression for repayment; immediately after default on the foreign loan, an internal issue of £ 1.6 million was necessary. Mexico did not have the option of returning to the capital market.

Consonant with the revenue default mode, one might expect foreign creditors to actively involve themselves in efforts to promote internal fiscal reform. Bondholders' appeals to the British Foreign Office for satisfaction of their claims were, however, not met with an affirmative response. Nonetheless, a range of incidents and interventions characterized the period following default in the 1820s.

To this subject that has aroused considerable debate, I wish to add three observations. One is that the lack of more overt intervention to collect outstanding debts, such as was later to appear in Turkey, Egypt and Greece, owes less to principle than other reasons. Specifically, there was not the same overriding political/strategic setting in Latin America in the 1830s as in the other cases. In addition, countries agreed to recognize their interest arrears, albeit with some concession in their amount and future interest rates. This alleviated the losses that otherwise might have accrued.

The second point is that the instances of intervention are the consequence of the very fiscal and political weakness that prevented countries from servicing such debts. Internal obligations could and did provoke cases of representation by foreign ambassadors on behalf of their citizens. The Mexican Diplomatic Conventions with the force of treaties are exemplary. It was not the decision to commit to international integration that was at the root of the problem, nor could it be expected to resolve the fiscal impasse so many countries faced.

Thirdly, the actual payments of Latin American countries on the resources they received during this first episode of borrowing were better arrangements than they are frequently made out. With the exception of Brazil, debt service was invariably smaller than initially contracted as a result of renegotiations that typically reduced interest rates on interest arrears to three percent, and in some cases also reduced their outstanding amounts. Moreover, as argued above, the costs were far less onerous than reliance on internal sources that were the alternative. While creditors could manage in several cases to do better than the Consol rate, in others like Mexico and Peru, they did perceptibly worse.

The underlying problem in the 1820s was the deficiency of revenue borrowing. In the 1870s, during another debt crisis, we see an example of Latin American development borrowing and consequent different circumstances.

b. The 1870s

After a prolonged period in which little Latin American foreign borrowing was possible, most countries were able to return to capital markets in the more buoyant international conditions of the 1850s. But their access was limited. The purpose of most new loans during that decade was to refinance previous unmet obligations. During the next ten years and into the first half of the 1870s, much larger sums were made available for the first time for investment in infrastructure. Latin American governments embarked on a developmental role, catching up with the railway revolution under direct state guidance.

Table 2: The Debt Crisis of the 1870s (in Millions of Pound Sterling)

Country	External Public Debt	Total Public Debt (ca. 1877)	Total Foreign Investment	Foreign Investment/ Exports	Public Debt/ Revenue	Annual Growth of Exports 1871-75	Annual Growth of Revenue 1871-75
Argentina	11.3	16.4	25.7	2.2	4.0	12.5	4.8
Brazil	19.2	58.1	31.3	1.4	4.5	8.2[a]	4.0[a]
Chile	7.6	11.1	12.1	2.3	4.9	1.0	5.1[a]
Peru	31.8	43.0	35.9	7.4	8.9[b]	1.0	9.0

a Statistically significant at ten percent level. b Includes guano receipts.

Sources: Mulhall (1880: 472); Peters (1934: 30-31); Abreu (1985b: 170); *Estatísticas Históricas, Brasil* (1987,III: 522, 570); *Statistical Abstract, Chile* (1919: 64, 70-72); Fenn (1889: 368-369, 396-397, 403, 541-542).

The much increased borrowing – government debt more than doubled in the decade between 1865 and 1875 – left countries vulnerable to the long swing in the international economy that saw a downturn in the 1870s. By 1876 eleven Latin American countries were in default. But perhaps the most interesting aspect of this period is the continuing ability of Argentina, Brazil and Chile to service their debts, especially in contrast to the case of the region's then largest debtor, Peru.

Table 2 provides some of the elements in the explanation. It records for these countries the magnitude of their debt and investment relative to revenues and exports. Several points stand out.

Firstly, the successful debtors, as a result of domestic economic growth and fiscal prudence, enjoyed both favorable debt-revenue and debt-export ratios. Peru was much more unfavorable on both dimensions, with consequently much greater debt service charges both on public sector revenues as well as on national foreign exchange earnings.

Secondly, successful debtors all enjoyed a much larger capacity to finance some of their needs internally rather than relying exclusively upon foreign loans. This was of special importance because all three countries experienced large increases in military outlays that were predominantly met by domestic levies rather than by foreign revenue borrowing. Each was able to utilize domestic monetary issue, bearing no interest, as an important part of finance, thereby alleviating subsequent service costs. Their more extensive internal financial capability averted any external transfer problem. Export growth slowed in all these countries at the end of the 1870s after better performance in the earlier 1870s as Table 2 shows.[5] But default did not ensue.

Thirdly, all of the successes had enjoyed growing revenues from the 1860s on. Peru's high value, non-significant statisti-

5 The Chilean aberration is more apparent than real. Compared to levels in the late 1860s earnings were substantially greater in that case as well.

cally, reflects less a steady cumulation than a previous sharp decline prior to the base for the calculations. It was relying primarily upon its seemingly inexhaustible stock of guano deposits to underwrite vast expenditures; it was living off its capital. As guano revenues became increasingly committed to debt service, there was a corresponding effect on disposable state income. Attempted fiscal reforms, and diversification into nitrates, came too late.

Fourthly, countries were able to avert default despite generally higher debt-revenue ratios than those of the 1820s. The reason is that these successful Latin American borrowers enjoyed much better borrowing terms in the 1870s than they had earlier. Issues were regularly sold with 5 to 6 percent coupons at prices of 90. Peru is differentiated adversely in this respect as well. The 1872 loan of £ 22 million was a complete failure, with a public subscription of only £ 230,000. The net proceeds of the issue, after final placement, amounted to £ 13 million (Wynne 1951, II: 119).

Capital markets, despite the considerable publicity attached to the frauds and excesses in lending to Costa Rica, Honduras, Paraguay and Santo Domingo in the Report of the British Select Committee on Foreign Loans, were able to make distinctions. The four borrowers discussed here accounted for some 70 percent of public borrowing during the period.

The Peruvian default, this time, is not a pure case of revenue borrowing come to grief as I had categorized the 1876 default in my earlier article, "Lessons from the Past." Rather it is better described as a combination of consumption and poor investment borrowing. Loan proceeds were not committed exclusively to refinance and current governmental outlays. The size of the Peruvian debt is testimony to the weight given to attempted modernization through railway construction. Undaunted by the technical difficulties, or the associated cost, the Peruvian government confided in the capacities of the American contractor, Henry Meiggs, to construct railways into the Andes. It was an expenditure, however, totally unjustified by the potential returns it might achieve. Infrastructure investment is not in itself an assurance of successful developmental borrowing.

c. The 1890s[6]

Argentina and Brazil were the largest borrowers in the next upsurge of lending to Latin America in the 1880s. Both experienced debt service difficulties in the 1890s. Their resolution illuminates further the distinction between revenue and developmental borrowing.

Argentina entered upon a rapid decade of development in the 1880s. Railroad and other investment underwrote transformation from a pastoral into a grain economy. Foreign capital played an important part in the boom. But so did very expansive internal credit creation. Despite large inflows of foreign exchange, so extensive was monetary growth that Argentina was forced to leave the gold standard in 1885. By the end of the 1880s provincial borrowing abroad was greatly stepped up to underwrite the creation of a new national banking system, whose development contributed to a more than trebling of fiduciary circulation between 1887 and 1890.

Enthusiasm for Argentine lending did not survive such internal economic policies and increasing political uncertainty. The Baring Panic was the last stage of waning Argentine creditworthiness, not the first. It sealed the inability to approach the capital market for new issues, and increased the importance of Argentine debt to the stability of the British, and international, financial system.

Argentine default was therefore met by an early effort to restore debt service. An agreement with the Rothschild Committee led to a special Morgan issue of £ 15 million in 1891 to cover interest on national obligations for a period of three years. Interest would be paid by issues of the bonds; more debt would solve the debt problem while Argentina adjusted its fiscal and

6 This discussion is drawn from my more extensive treatment in Fishlow (1989b).

balance of payments disequilibrium. The latter stood out: the trade deficit in 1890 was almost three times as large as debt service obligations.

That arrangement did not last. A new agreement was reached in 1893 that substituted some outright debt relief. The Romero settlement reduced interest payments for five years and payments for amortization until 1901. In the event, Argentina opted to resume full interest payments a year ahead of schedule. By the end of the decade, Argentina also succeeded in restoring convertibility of the peso at the then market rate. A period of very rapid growth followed at rates in excess of six percent a year. New flows of foreign capital financed something like half of national investment.

Several aspects of this settlement are worth noting. Firstly, the degree of debt relief was relatively modest, confined as it was to the national debt and for a limited period. Much larger gains were derived by the de facto failure to service provincial and municipal debts. Argentina was a development defaulter whose rapid expansion of exports and thereby product and revenue would give it the means to meet its obligations.

Secondly, it had been the rapid reversal of capital flows and relatively stagnant exports between 1888 and 1891 that contributed to the default, rather than a fiscal collapse. The 1890 fiscal deficit was smaller than in any of the three previous years. Rather, the need to compress imports resulted in 1891 in an increasing deficit owing to diminished import customs duties. The recognition of the foreign exchange problem was also seen in the imposition of new duties collectible in gold. That gave the government direct access to foreign exchange.

Thirdly, because it was a developmental rather than a fiscal crisis, it required compression of imports and adjustment of income and wages to restore equilibrium. The real economy, and not only financial arrangements, was important. Once such measures were underway, national credit was quickly restored. Government four percent bonds redeemed provincial debts advantageously, and railroad guarantees were analogously funded.

In the Brazilian case, there was also expansion in the latter part of the 1880s. Economic circumstances were complicated by political changes. With the fall of the Empire and the abolition of slavery came a large increase in the money supply and domestic inflation and exchange rate depreciation. These domestic developments were complicated by the Baring Panic that diminished enthusiasm for British foreign investment in Latin America as a whole. But continuing good export performance enabled Brazil to service its foreign debt and to extend its domestic expansion until later in the decade. Two loans were floated in 1893 and 1895 at five percent, and the latter at a price of 85.

The magnitude of the exchange rate depreciation imposed monetary discipline from 1892 forward. But it was to take full effect only in 1898. As a result of deterioration in the balance of payments Brazil, well after Argentina, contracted a funding loan that consolidated debt, postponed amortization and financed continuing interest payments. One of the conditions of the arrangement was a more spartan economic policy. Corresponding to external finance, it was necessary to reduce domestic monetary issue. Unlike Argentina in 1891, Brazil complied, ushering in a deflationary period that lasted until 1902.

Brazilian growth thereafter was rapid and benefitted from an expanding international economy and foreign investment. But the real story was a rise in value of exports of 5.4 percent a year in value terms, but only 0.1 percent in volume. Under the impulse of an excess supply of coffee, Brazil sustained a diversification into the industrial sector in the pre-War years.

Brazil's 1898 Funding Loan provided for no interest rate relief. While it stressed internal economic policy, the focus was much more on the exchange rate than upon fiscal revenues. Brazil's fiscal capacity is amply indicated by the capacity to live up to the Rothschild agreement, generating surpluses adequate to retire monetary issue. New sales taxes and tariff collections in gold contributed to such an achievement.

But the principal point to emphasize again is the central role of the balance of payments in provoking crisis and leading recovery. But unlike the case of Argentina, capital market instability played no role in the outcome. It was cyclical demand for coffee coupled with its oversupply, that did in Brazil.

This comparison of the two cases also clarifies another issue. Adjustment of the Argentine and Brazilian economies was necessitated not exclusively because of foreign lending, but because they were integrated into the world economy through trade as well. Although Brazil managed access to the capital market, and never actually defaulted, while Argentina did, Brazil nonetheless had to undergo a painful adjustment during the Murtinho years. Lending could and did exaggerate susceptibility to external shocks, but perhaps above all, it gave considerable latitude for expansionary domestic policy that too, was a prime factor in the eventual cyclical decline before the next wave of recovery.

4. Conclusion

The nineteenth century covers long periods of Latin American indebtedness and default. What we have seen is that they were not of common cause nor identical consequence. Early on, countries sought foreign help to finance their current public expenditures; this unfortunate beginning continued for some countries virtually to century's end. But for others, the beginning of railway and other public investments afforded an opportunity for increased investment and expansion. This development borrowing helped to finance the needed expenditures for public and private provision of infrastructure. Failure was not excluded, but when it occurred, it was resolved faster and more effectively than was the case of revenue borrowing.

Indeed, more effectively than we have seen in recent years. The rhythms of an expanding global economy, with free-trade Britain at its center, in conjunction with attentive investment banks, smoothed over the problems of developmental borrowers afflicted by growing pains. In the 1980s alas, the slow response of the industrial countries to Latin America's debt problem has complicated recovery. Ironically, despite the extensive positive internal reforms that have been accomplished throughout the region, prospects for the next century still remain in doubt. History provides a useful perspective on the present.